APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,011	06/21/2006	Mario Dzeko	62630-010	4804

29493 7590 12/13/2007		

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EXAMINER
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ART UNIT	PAPER NUMBER
2169	

MAIL DATE	DELIVERY MODE
12/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/584,011	DZEKO ET AL.
	Examiner	**Art Unit**	
	Bruce A. Witzenburg	2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>21 June 2006</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-7</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed..

6) ☒ Claim(s) <u>1-7</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>21 June 2006</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>6/21/2006</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-7 are pending in this application.

2.   Because the NPL reference "Trusted Computing, Peer-To-Peer Distribution, and

the Economics of Pirated Entertainment" was not wholly received by the USPTO for

prosecution purposes, a new copy of the aforementioned reference is included with this

office action for prosecution purposes

Information Disclosure Statement

3.   The information disclosure statement filed on 6/21/2006 is in compliance with the

provisions of 37 CFR 1.97, and has been considered by the examiner. a copy is

included with this office action

Drawings

4.   The drawings filed on 6/21/2006 are acceptable for examination purposes.

Specification

5.   35 U.S.C. 112, first paragraph, requires the specification to be written in "full,

clear, concise, and exact terms." The specification is replete with terms which are not

clear, concise and exact. The specification should be revised carefully in order to

comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or

verbose terms used in the specification are: "other people's computers" (¶0004, ¶0013,

¶0014), "inter alia consist of" (¶0004), "the latter" (¶0012), "at least some of the other

people's computers" (¶0019). In addition, the specification includes numerous errors in

spelling such as "unauthorised," "decentralised," "recognises," "recognise," and ·

"recognisable,"

Claim Objections

6.   Claims 1-7 are objected to because of the following informalities:

a.   "the file" (Claim 1, line 3) lacks antecedent basis. Note that "the file to be

protected" (Claim 1, lines 13-14) is sufficient to show antecedent basis in

"method for protecting a file" (Claim 1, line 1) and thus "the file" is perceived to be

a different extraneous file..

b.   "the form" (Claim 1, line 3) lacks antecedent basis

c.   "the title" (Claim 1, lines 5-6) lacks antecedent basis

d.   "the content to be protected" (Claim 1, line 7; Claim 7, lines 1-2) lacks

antecedent basis

e.   "the latter" (Claim 1, line 12) lacks antecedent basis

f.   "the result of comparison" (Claim 4, line 3) lacks antecedent basis

g.   "the IP address" (claim 5, line 1) lacks antecedent basis

h.   Claims 1-7 lack appropriate introductory articles (i.e. claim 1 should begin

"The method for protecting" instead of "Method for protecting")

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

7.   Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "other people's computers" does not clearly set fourth what constitutes "others." Computer terminology allows the term others to refer to those who are not an individual or who are not in a group. Additionally, because this phrase implies ownership of a computer it should be noted that ownership of a computer can come down to administrators, account users, primary purchaser, temporary control or remote terminal users, etc. and also displays indefinite subject matter. This problem of ownership also arises when saying "one's own computer" and thus the following segments need correction: (Claim 1, lines 2, 9, 13; Claim 2, lines 3, 4-5, 5, 6, 7-8; Claim 3, lines 1, 3; Claim 4, line 2; Claim 5, line 1-2; Claim 6, lines 1-2)

Additionally regarding claim 1 the term "inter alia consist of" (Claim 1, line 5) is deemed indefinite. The MPEP specifically defines the term "consist" as being a part of a closed set, therefore no portion of an invention can "inter alia consist of."

Further regarding claim 1, the term "consist of [...] and e.g. the title" (Claim 1, lines 5-6) is deemed indefinite. Because consist of is a closed set, it can not include an open set of information such as that set fourth using exemplary language. The included exemplary language also provides indefiniteness.

Still Further regarding claim 1, it is unclear what "characterized by the following steps" characterizes. Given the language used said steps potentially characterize "the title," "the proprietary content and metadata," or "The method for protecting a file [...]"

Still Further regarding claim 1, the term "the latter" (Claim 1, line 12) is deemed indefinite. There is little indication of what "the latter" refers to and this phrase should be clarified

Lastly regarding claim 1, the term "answering inquiries" (Claim 1, line 13; Claim 6, line 1) is deemed indefinite. Computer terminology allows the term inquiries to be any of a broad set of operations used for location, transfer, modification, etc. many of which do not routinely exist in a P2P environment and the term answer to include a UDP, ping, function return value, etc. many of which also do not routinely exist in a P2P environment. The examiner suggests that if said answer to inquiry exists as a part of the invention to confirm or deny whether data to be transferred is protected content that such limitations are claimed in the place of "answering inquiries."

Regarding claim 2, the term "partial steps" leaves the claim indefinite as it is unknown if

only part of the mentioned steps are carried out, or if the steps individually are each part

of larger 'whole' steps, or if only a subset of the claimed steps are carried out.

Additionally regarding claim 2, the term "some" (claim 2, line 4) is a relative term and

renders the claim indefinite.

Lastly regarding claim 2, The steps of "entering [...] determining [...] setting up [...]" are

deemed indefinite because they do not exist as a subset of steps from claim 1. The

order of execution of such steps when combined with the steps of claim 1, is indefinite

and thus renders the claim indefinite.

Regarding claim 4, the phrase "the result of comparison is positive" is deemed

indefinite. While the examiner feels the term positive refers to a match, it should be

pointed out that there are many different types of digital comparisons resulting in a

positive or negative result (add, less than, greater than, equal to, etc.) The above

phrase should be changed to indicate a match instead of a positive result.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Trusted Computing, Peer-To-Peer Distribution, and the Economics of Pirated Entertainment." Stuart E Schechter, Rachel A. Greenstadt, and Michael D Smith, Hereafter Schechter, in view of "Incentives Build Robustness in Bit Torrent" Bram Cohen, hereafter Cohen

Regarding claim 1, Schechter discloses a method for protecting a file with proprietary content against unauthorized copying by file sharing by other people's computers which are pooled to form an internet file sharing site (Pg 6, lines 2-10; note this discloses the intent to explore file protection methods and such methods are stated throughout the chapter)

generating a data record which is modified from the data record provided and which includes at least the saved hash ID and replacement content data linked to the latter (Pg 7, lines 9-13 Note this is an integrity attack)

While Schechter does disclose searching on the internet (Pg 7, lines 37-39) and a hash (Pg 7, lines 21-23), and providing the modified data record (Pg 7, lines 9-13) he does not disclose a method which makes the file available in the form of randomly stored data records, or the steps of:

searching for the content to be protected on the internet saving at least the hash ID of each data record provided as a hit by at least one other person's computer answering inquiries from other people's computers about the file to be protected.

Cohen discloses making the file available in the form of randomly stored data records (Pg 2, Right column, lines 11-17 Note that this indicates both the amount of the file and the location of the users which have the file are not predictable without reporting and the examiner feels this is sufficient to read upon random in the manner used) searching for the content to be protected on the internet saving at least the hash ID of each data record provided as a hit by at least one other person's computer (Pg 2, Right column, lines 11-17 Note the hashing information is stored in the torrent file and is considered a hit to the corresponding data record resident to other computers containing the same information) and answering inquiries from other people's computers about the file to be protected (Pg 2, Right column, lines 11-17 Note in this way available pieces are inquired about and answered) Because Schechter discloses methods of attack on peer-to-peer file sharing sites and Cohen shows a particular implementation of a file sharing site, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Cohen with the teachings of Schechter in order to carry out an attack on a file sharing site.

Regarding claim 2, Schechter discloses the step of

entering and saving IP addresses of at least some of the other people's computers in the local database of one's own computer (Pg 6, lines 19-23 Note that while) setting up a connection of one's own computer to the internet and starting the search by scanning for a search term on the other people's computer (Pg 7, lines 37-39 Note that peer-to-peer file transfer inherently entails setting up a connection to remote computers through the internet).

While Schechter does not disclose entering at least one search term identifying the file to be protected, in a local database of one's own computer it should be appreciated that a file to be modified in order to perform an integrity attack such as that which is described in Schechter, first must be located and it would have been obvious to one of ordinary skill in the art to enter search terms into an operating system's find function such as that built into Microsoft Windows 2000 and XP.

Regarding claim 3, Schechter discloses one's own computer providing the modified data record belonging to the file to be protected, for downloading by the other people's computers designated by the saved IP addresses (Pg 7, lines 9-13 Note that "one's computer" in this case is equivalent to the attacker's computer).

Regarding claim 4, Schechter discloses the hash ID of each data record provided by another person's computer as a hit is compared with the saved hash IDs, and hits for which the result of comparison is positive are not further processed into a modified data

record. (Pg 7, lines 20-24 Note that content not matching a hash is thrown out and re-downloaded)

Regarding claim 5, Schechter does not disclose the IP address of one's own computer being regularly altered, however the DHCP protocol for determining IP address provides a method for easily setting up an internet connection which takes out IP "timeshares" which are regularly updated, and being well known in the art at the time of the invention, it would have been obvious to one of ordinary skill in the art at the time of the invention to use DHCP to establish their internet connection.

Regarding claim 6, Schechter discloses inquiries by other people's computers about the file to be protected being logged (Pg 6, lines 19-23 It should be noted that evidence for litigation includes logged traffic information and thus logging would be either inherent in the description of Schechter or obvious to one of ordinary skill in the art at the time of the invention). Schechter does not disclose logging being in anonymous form, however in order to prevent an attacker from gaining a known identity which could then be detected, it would have been obvious to one of ordinary skill in the art at the time of the invention to use identity obscuring methods to remain anonymous when gathering logging information.

Regarding claim 7, Schechter does not disclose searching for the content to be protected only being done up to a predetermined expiry date, however because the

computational power of any attacker is limited, it should be appreciated that any number

of metrics for determining when to cut off an attack would have been obvious to use

such as number of downloaders, timestamp or date, quality rating, etc. all of which are

readily available to those using file sharing sites. Because of limited computing it

therefore would have been obvious to one of ordinary skill in the art to set a point based

upon a known metric to cut off an attack.

Conclusion

1.   The prior art made of reference in this case is as follows:

a.   "Trusted.Computing, Peer-To-Peer Distribution, and the Economics of

Pirated Entertainment." Stuart E Schechter, Rachel A. Greenstadt, and Michael

D Smith (May 29, 2003)

b.   "Incentives Build Robustness in Bit Torrent" Bram Cohen (May 22, 2003)

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Bruce A. Witzenburg whose telephone number is 571-

270-1908. The examiner can normally be reached on M-F 9:00 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ali Mohammed can be reached on 571-272-4105. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BW
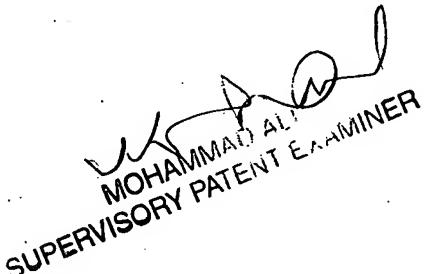
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